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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,111

09/20/2006

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EXAMINER

THROWER, LARRY W

ART UNIT

PAPER NUMBER

1791

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,111	Applicant(s) FUKASAWA ET AL.	
	Examiner LARRY THROWER	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/11/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/12/2008; 8/12/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed September 11, 2008 has been entered. Claims 1, 2 and 4 are amended. Claims 7-8 are added. Claims 1-8 are under examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claim 7** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
 - Claim 7 includes the limitation "...wherein the low-pressure fluid has a pressure of not higher than 1.0 MPa." While the specification provides support for the specific range 0.5-1 MPa, the range recited in claim 7 includes values much lower than 1 MPa and even lower than 0.5 MPa. There is no support for this limitation in the original application as filed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-8** are rejected under 35 U.S.C. 102(b) as being anticipated by Arimatsu (JP-61084211A).
- Regarding **claim 1**, Arimatsu teaches a method of vulcanization-molding a rubber material (title) by heating a vulcanization mold and pushing the rubber material onto a shaping face of the mold (fig. 1) through a pressure supplied to an interior of the mold (page 4, upper right, first paragraph), wherein a low-pressure fluid is supplied to the interior of the mold at an initial stage of the vulcanization molding and thereafter the pressure of the fluid is increased stepwise (fig. 6; page 4, upper right, first paragraph).
 - Regarding **claim 2**, Arimatsu discloses a low-temperature fluid being supplied to the interior of the vulcanization mold at the initial stage of the vulcanization molding and thereafter the temperature of the fluid is increased stepwise (page 3, lower right, second paragraph).
 - Regarding **claim 3**, Arimatsu discloses two fluids having different pressures and temperatures being selectively supplied to the interior of the vulcanization mold (page 2, upper right, third paragraph).

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- Regarding **claim 4**, Arimatsu teaches after the supply of the fluids to the interior of the vulcanization mold, an inert gas having a pressure higher than the two fluids is supplied to the mold (page 2, lower right, second paragraph).
 - Regarding **claim 5**, Arimatsu discloses the fluid being steam (page 3, upper right, second paragraph).
 - Regarding **claim 6**, Arimatsu teaches a time at the initial stage of the vulcanization molding being within a range of 3 minutes and a pressure of a steam supplied to the vulcanization mold in such a time is 10 kg/cm² (0.98 MPa).
 - Regarding **claim 7**, Arimatsu discloses the low-pressure fluid having a pressure of not higher than 1.0 MPa (0.98 MPa between 0-3 minutes).
 - Regarding **claim 8**, Arimatsu discloses the low-pressure fluid having a pressure of 0.5-1.0 MPa (0.98 MPa between 0-3 minutes).
6. **Claims 1, 5 and 7** are rejected under 35 U.S.C. 102(b) as being anticipated by Ono (U.S. Patent Publication No. 2001/0054782).
- Regarding **claim 1**, Ono teaches a method of vulcanization-molding a rubber material a method of vulcanization-molding a rubber material (title; ¶ 18) by heating a vulcanization mold and pushing the rubber material onto a shaping face of the mold (fig. 3) through a pressure supplied to an interior of the mold (¶ 20), wherein a low-pressure fluid is supplied to the interior of the mold at an initial stage (fig. 2, “P1U”) of the vulcanization molding and thereafter the pressure of the fluid is increased stepless (fig. 2, “P2U”; ¶ 34).

- Regarding **claim 5**, Ono discloses the fluid being steam (§ 21).
- Regarding **claim 7**, Ono discloses the low-pressure fluid having a pressure no higher than 1.0 MPa (0 MPa at S1 in fig. 2).

Response to Arguments

7. Applicant's arguments filed September 11, 2008 have been fully considered but they are not persuasive.
- Applicant argues that the novelty of the claimed invention lies in the avoidance of supplying high pressure before the start of vulcanization (emphasis in Applicant's response). This argument has been considered but is not persuasive. There is nothing in the language of the instant claims which would preclude supplying high pressure before the start of vulcanization. Note the "comprising" language, which leaves the method open for additional steps.
 - Applicant further argues that Arimatsu does not disclose the timing of changing the pressure and temperature. This argument has been considered but is not persuasive. Arimatsu discloses the temperature and pressure of the vulcanization process being divided into three parts: (1) 0-3 min, 80C, 10kg/cm², (2) 3-10 min, 130C, 20kg/cm², (3) 10-30 min, 150C, 25kg/cm² (col. 3, line 20 - col. 13, line 4).
 - Applicant further argues that Ono does not disclose that the low-pressure fluid is supplied to the interior of the mold at the initial stage of the vulcanization molding, and the pressure of the fluid is increased after the vulcanization of the rubber material starts. This argument has been considered but is not persuasive. Ono

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discloses that the low-pressure fluid is supplied to the interior of the mold at the initial stage of the vulcanization molding (fig. 2; "S1" and "P1U"; ¶¶18-27), and the pressure of the fluid is increased after the vulcanization of the rubber material starts (fig. 2; "P2U"; ¶34).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LARRY THROWER whose telephone number is 571-270-5517. The examiner can normally be reached on Monday through Friday from 9:30AM-6PM est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Larry Thrower/
Examiner, Art Unit 1791

/Christina Johnson/
Supervisory Patent Examiner, Art Unit 1791